Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

CLAIM 1 (canceled)

CLAIM 2 (canceled)

CLAIM 3 (currently amended)

~~The apparatus of claim 1 wherein said cones are asymmetric.~~

An antenna apparatus comprising:

an antenna feed line having first and second conductors;

a driver section comprising a pair of asymmetric cones, each of said cones having an apex region, said cones arranged so that said apex regions are spaced apart and are adjacent and in which one of said cones is connected to said first conductor and a second of said cones is connected to said second conductor; and

a beam shaper section including a beam shaper element having a beam shaper surface of a shape chosen to provide selected antenna operating characteristics and a conforming surface that is disposed in substantial conformity with a crotch defined between said two cones.

CLAIM 4 (currently amended)

~~The apparatus of claim 3 wherein said cones are oblique cones.~~

An antenna apparatus comprising:

an antenna feed line having first and second conductors;

a driver section comprising a pair of asymmetric oblique cones, each of said cones having an apex region, said cones arranged so that said apex regions are spaced apart and are adjacent and in which one of said cones is connected to said first conductor and a second of said cones is connected to said second conductor; and

a beam shaper section including a beam shaper element having a beam shaper surface of a shape chosen to provide selected antenna operating characteristics and a conforming surface that is disposed in substantial conformity with a crotch defined between said two cones.

CLAIM 5 (original)

The apparatus of claim 4 wherein said cones are oblique circular cones.

CLAIM 6 (original)

The apparatus of claim 4 wherein said cones are oblique elliptical cones.

CLAIM 7 (currently amended)

~~The apparatus of claim 1 wherein at least one of said cones has a plurality of slope faces.~~

An antenna apparatus comprising:

an antenna feed line having first and second conductors;

a driver section comprising a pair of cones wherein at least one of said cones has a plurality of slope faces, each of said cones having an apex region, said cones arranged so that said apex regions are spaced apart and are adjacent and in which one of said cones is connected

to said first conductor and a second of said cones is connected to said second conductor; and

a beam shaper section including a beam shaper element having a beam shaper surface of a shape chosen to provide selected antenna operating characteristics and a conforming surface that is disposed in substantial conformity with a crotch defined between said two cones.

CLAIM 8 (original)

The apparatus of claim 7 wherein said cones differ in slope faces.

CLAIM 9 (canceled)

CLAIM 10 (currently amended)

~~The apparatus of claim 9 wherein said shape of said beam former is substantially spherical.~~

An antenna apparatus comprising:

an antenna feed line having first and second conductors;

a driver section comprising a pair of cones, each of said cones having an apex region, said cones arranged so that said apex regions are spaced apart and are adjacent and in which one of said cones is connected to said first conductor and a second of said cones is connected to said second conductor; and

a beam shaper section including a beam shaper element having a convex beam shaper

surface that is substantially spherical to provide selected antenna operating characteristics and a conforming surface that is disposed in substantial conformity with a crotch defined between said two cones.

CLAIM 11 (currently amended)

~~The apparatus of claim 9 wherein said shape of said beam former is substantially ellipsoidal.~~

An antenna apparatus comprising:

an antenna feed line having first and second conductors;

a driver section comprising a pair of cones, each of said cones having an apex region, said cones arranged so that said apex regions are spaced apart and are adjacent and in which one of said cones is connected to said first conductor and a second of said cones is connected to said second conductor; and

a beam shaper section including a beam shaper element having a convex beam shaper surface that is substantially ellipsoidal to provide selected antenna operating characteristics and a conforming surface that is disposed in substantial conformity with a crotch defined between said two cones.

CLAIM 12 (currently amended)

~~The apparatus of claim1 wherein said beam shaper element is a first of first and second~~

~~beam shaper elements wherein said first beam shaper element substantially surrounds said second beam shaper element, each of said beam shaper elements having different dielectric properties.~~

An antenna apparatus comprising:

an antenna feed line having first and second conductors;

a driver section comprising a pair of cones, each of said cones having an apex region, said cones arranged so that said apex regions are spaced apart and are adjacent and in which one of said cones is connected to said first conductor and a second of said cones is connected to said second conductor; and

a beam shaper section including a beam shaper element having a beam shaper surface of a shape chosen to provide selected antenna operating characteristics and a conforming surface that is disposed in substantial conformity with a crotch defined between said two cones, wherein said beam shaper element is a first of first and second beam shaper elements wherein said first beam shaper element substantially surrounds said second beam shaper element, each of said beam shaper elements having different dielectric properties.

CLAIMS 13-27 (original)

CLAIM 28 (first occurrence - original)

CLAIM ~~28~~ 29 (second occurrence - currently amended)

The antenna apparatus of claim 27 wherein said first beam shaper is of foam and said

second beam shaper is of polyethylene.